

**UNITED STATES DEPARTMENT OF COMMERCE****United States Patent and Trademark Office**Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231*BGS*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/212,434 12/16/98 KANEDA

K 862-2569

005514 WM31/0606  
FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK NY 10112

EXAMINER

DASTOURI, M

ART UNIT	PAPER NUMBER
----------	--------------

2623

DATE MAILED:

06/06/01

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<b>Office Action Summary</b>	Application No. <b>09/212,434</b>	Applicant(s) <b>Kitahiro Kaneda</b>
	Examiner <b>Mehrdad Dastouri</b>	Art Unit <b>2623</b>
<i>-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</i>		
<b>Period for Reply</b>		
<p>A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>Three</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.</p> <ul style="list-style-type: none"> <li>- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.</li> <li>- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.</li> <li>- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.</li> <li>- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).</li> <li>- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).</li> </ul>		
<b>Status</b>		
1) <input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>Mar 30, 2001</u>		
2a) <input checked="" type="checkbox"/> This action is FINAL.      2b) <input type="checkbox"/> This action is non-final.		
3) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11; 453 O.G. 213.		
<b>Disposition of Claims</b>		
4) <input checked="" type="checkbox"/> Claim(s) <u>16-24 and 36-50</u> is/are pending in the application.		
4a) Of the above, claim(s) _____ is/are withdrawn from consideration.		
5) <input type="checkbox"/> Claim(s) _____ is/are allowed.		
6) <input checked="" type="checkbox"/> Claim(s) <u>16-24 and 36-50</u> is/are rejected.		
7) <input type="checkbox"/> Claim(s) _____ is/are objected to.		
8) <input type="checkbox"/> Claims _____ are subject to restriction and/or election requirement.		
<b>Application Papers</b>		
9) <input type="checkbox"/> The specification is objected to by the Examiner.		
10) <input type="checkbox"/> The drawing(s) filed on _____ is/are objected to by the Examiner.		
11) <input type="checkbox"/> The proposed drawing correction filed on _____ is: a) <input type="checkbox"/> approved b) <input type="checkbox"/> disapproved.		
12) <input type="checkbox"/> The oath or declaration is objected to by the Examiner.		
<b>Priority under 35 U.S.C. § 119</b>		
13) <input type="checkbox"/> Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).		
a) <input type="checkbox"/> All b) <input type="checkbox"/> Some* c) <input type="checkbox"/> None of: 1. <input type="checkbox"/> Certified copies of the priority documents have been received. 2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____. 3. <input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).		
*See the attached detailed Office action for a list of the certified copies not received.		
14) <input type="checkbox"/> Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).		
<b>Attachment(s)</b>		
15) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)		
16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)		
17) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____		
18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____		
19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)		
20) <input type="checkbox"/> Other: _____		

Art Unit: 2623

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendment filed, March 30, 2001, has been entered and made of record.
2. 35 U.S.C. 112, first paragraph rejection of Claims 16-24 and 36-50 has been withdrawn in view of Applicant's amendment.
3. 35 U.S.C. 112, second paragraph rejection of Claims 16-19, 22, 41 and 48 has been withdrawn in view of Applicant's amendment.
4. Objection to Claim 42 has been withdrawn in view of Applicant's amendment.
5. Applicant's arguments with respect to Claims 16, 20, 24, 36, 43 and 50 have been fully considered but they are moot in view of the new grounds of rejection.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
7. Claims 16, 18-20, 22-24, 36, 43 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al (U.S. 5,982,928) in view of Yamamoto (U.S. 5,802,179).

Regarding Claim 16, Shimada et al disclose a communication system that performs

Art Unit: 2623

communication between a terminal (Figure 1, Terminals 5/6 and 7/8) and a central control unit (Figure 1, Host Terminal 10000), said terminal comprising:

a read means for reading a manuscript, including a manuscript ID showing the attributes such as terminal ID or describer name , or pointers of data to be recognized, as image data (Figure 2, Digitizer 19; Column 2, Lines 60-63; Column 7, Lines 46-47);

storage means for storing a recognition dictionary group whose members each correspond to each attribute of the image data (Figure 2, ROM 17 for storing permanent information which includes basic and personal dictionaries);

character recognition means for performing character recognition from the image data, read by said read means, with selecting a recognition dictionary, based on a control signal, from the recognition dictionary group, stored in said storage means (Figure 1, Recognition Engines/Basic and Personal Dictionaries 6 and 8; Column 5, Lines 30-34; Figure 5A; Column 7, Lines 60-67, Column 8, Lines 1-3. As depicted in Figure 5A, in Step S15, handwritten recognition is requested to be performed in corresponding terminals 5 or 7. The control signal from host terminal is the recognition request command (stroke information including the writing position/time information as disclosed in Column 8, Lines 39-49) and the pointer of the data to be recognized.);

manuscript ID recognition means for recognizing said manuscript ID from said image data (Figure 1, Recognition Unit 104; Column 5, Lines 43-60; Column 8, Lines 41-49); and

Art Unit: 2623

first communication means for transmitting a result of character recognition in said character recognition means and a result of manuscript ID recognition in said manuscript ID recognition means to said central control unit or receiving said control signal from the central control unit (Figure 2, Communication Device 23; Figure 5B; Column 8, Lines 5-15); said central control unit comprising:

second communication means for receiving the result of character recognition in said character recognition means and the result of manuscript ID recognition in said manuscript ID recognition means from said terminal or transmitting said control signal to the terminal (Figures 1 and 4B, Communication Service 2; Column 7, Lines 19-23); and

control means for controlling said control signal on the basis of the result of manuscript ID recognition in said manuscript ID recognition means, which said second communication means receives (Figure 1, Recognition Control Unit 4, Attribute Addition Unit 3; Column 5, Lines 46-57. The control signal is controlled based on the attribute (manuscript ID) such as terminal ID or describer name , or pointers of data to be recognized.). Shimada et al do not explicitly disclose a manuscript ID showing recognition position information of recognition areas in a specific read manuscript as image data. Yamamoto disclose a document information processor for reading a print sheet comprising a manuscript, which includes a manuscript ID showing recognition position information of recognition areas in a specific read manuscript as image data(Figure 2, Printed Sheet 30, Field “a”; Column 9, Lines 30-31; Column 9, Lines 58-64. As depicted in Figure 2, the positional information of recognition areas are represented in the Field “a’ of the

Art Unit: 2623

printed sheet.). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Shimada et al invention according to the teachings of to Yamamoto to include a manuscript ID showing recognition position information of recognition areas in a specific read manuscript as image data because it will provide prompt access to positional information of different recognition areas and will expedite character recognition process.

Regarding Claim 18, Shimada et al further disclose the communication system according to Claim 16, wherein said control means comprises a database managing said control signal for each type of a manuscript that is represented by a manuscript ID and obtains from said database a control signal corresponding to a manuscript ID shown by the result of manuscript ID recognition in said manuscript ID recognition means (Figure 1, Attribute Addition Unit 103, Personal/Basic Dictionaries 106/108; Column 5, Lines 46-60).

Regarding Claim 19, Shimada et al further disclose the communication system according to Claim 16, wherein said control signal includes positional information, showing each of plural recognition area in said image data, and recognition dictionary information showing a recognition dictionary used for recognition in each recognition area (Column 8, Lines 39-55). The control signal from host terminal (central control unit) to terminals 5 and 7 includes position information (e.g., a rectangular enclosing the data to be recognized) and stroke information which is based on the attribute of the terminal describer identifying the relevant dictionary (template) to be utilized.).

Art Unit: 2623

With regards to Claims 20, 24, 36, 43 and 50 arguments analogous to those presented for Claim 16 are applicable to Claims 20, 24, 36, 43 and 50.

With regards to Claim 22 arguments analogous to those presented for Claim 18 are applicable to Claim 22.

With regards to Claim 23 arguments analogous to those presented for Claim 19 are applicable to Claim 23.

8. Claims 17, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al (U.S. 5,982,928) further in view of Yamamoto (U.S. 5,802,179) and Lyon (U.S. 5,796,863).

Regarding Claim 17, Shimada et al further disclose the communication system according to Claim 16, wherein said character recognition means determines recognition candidate characters corresponding to said image data with using a recognition dictionary based on said control signal and outputs a predetermined number of recognition candidate characters in the order characters (Figure 1, Terminals 5/6 and 7/8; Column 7, Lines 24-27). Neither Shimada et al nor Yamamoto disclose determining recognition candidate characters according to largeness of similarity of the recognition candidate characters. Lyon disclose an adaptive classifier for handwritten recognition wherein the candidate characters are recognized according to largeness of similarity of the recognition candidate characters (Figure 1; Column 6, Lines 24-30). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Shimada et al and Yamamoto combination according to the teaching of Lyon to determine recognition candidate characters using a recognition dictionary based on the control

Art Unit: 2623

signal and output a predetermined number of recognition candidate characters in the order characters because it will increase accuracy of the recognition system by selecting candidate characters having highest probability of similarity.

With regards to Claim 21 arguments analogous to those presented for Claim 17 are applicable to Claim 21.

9. Claims 37-42 and 44-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al (U.S. 5,982,928) further in view of Yamamoto (U.S. 5,802,179) Bricklin et al (U.S. 5,848,187).

Regarding Claim 37, Shimada et al disclose the communication system according to Claim 36, wherein said character recognition means comprises judging means that outputs a recognition candidate character corresponding to said image data with using a recognition dictionary (Figure 1, Recognition Engine/Basic and Personal Dictionaries 6). Neither Shimada et al nor Yamamoto disclose the judging means judges on the basis of said control signal whether said recognition candidate character is recognizable. Bricklin et al disclose a handwritten recognition method and apparatus wherein a judging means judges on the basis of a predetermined threshold whether the recognition candidate character is unrecognizable (Column 18, Lines 41-64), and wherein said character recognition means outputs the result of character recognition on the basis of a judgement result of the judging means (Figure 16A; Column 25, Lines 65-67, Column 26, Lines 1-15). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Shimada et al and Yamamoto

Art Unit: 2623

combination according to the teaching of Bricklin et al to judge on the basis of the control signal whether the recognition candidate character is recognizable because it will reduce probability of erroneous character recognition.

Regarding Claim 38, Bricklin et al further disclose the communication system according to Claim 37, wherein said judging means judges whether said recognition candidate character is unrecognizable, by comparing said control signal with similarity of said recognition candidate character (Column 18, Lines 54-62).

Regarding Claim 39, Bricklin et al further disclose the communication system according to Claim 37, wherein said judging means judges that said image data is unrecognizable, if a value shown by said control signal is larger than the similarity of said recognition candidate character (Column 18, Lines 54-57. The handwritten character is unrecognizable if the predetermined threshold (the control signal) is larger than the confidence level for the best fit of the candidate character).

Regarding Claim 40, Bricklin et al further disclose the communication system according to Claim 39, wherein said character recognition means outputs a predetermined code showing unrecognizability as a recognition result of said recognition candidate character if the recognition candidate character is unrecognizable as a result of judgement of said judging means (Figure 16A; Column 25, Lines 59-61).

With regards to Claims 41 and 48 arguments analogous to those presented for Claim 18 are applicable to Claims 41 and 48.

Art Unit: 2623

With regards to Claims 42 and 49 arguments analogous to those presented for Claim 19 are applicable to Claims 42 and 49.

With regards to Claim 44 arguments analogous to those presented for Claim 37 are applicable to Claim 44.

With regards to Claim 45 arguments analogous to those presented for Claim 38 are applicable to Claim 45.

With regards to Claim 46 arguments analogous to those presented for Claim 39 are applicable to Claim 46.

With regards to Claim 47 arguments analogous to those presented for Claim 40 are applicable to Claim 47.

*Conclusion*

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

Art Unit: 2623

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contact Information***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehrdad Dastouri whose telephone number is (703) 305-2438. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au, can be reached at (703)308-6604.

***Any response to this action should be mailed to:***

Commissioner for Patents  
Washington, D.C. 20231

***or faxed to:***

(703) 308-9051 (for *formal* communications; please mark  
**"EXPEDITED PROCEDURE"**)

***or:***

(703) 872-9314 (for *informal* or *draft* communications, please label  
"PROPOSED" or "DRAFT")

***Hand delivered responses*** should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703)305-4700.

*MD*  
Mehrdad Dastouri  
Patent Examiner  
Group Art Unit 2623  
May 31, 2001

*AMELIA M. AU*  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600